

What is claimed is:

[Claim 1] 1. A projector, comprising:

illumination optics for providing light beams;

a light modulating apparatus for receiving and modulating the light beams;

a projection lens for projecting an image of the light beams received from the light modulating apparatus;

a first adjusting device for adjusting a position of the illumination optics; and

a second adjusting device for adjusting a position of the projection lens in response to the adjustment of the position of the illumination optics for creating an offset of a position of the image projected by the projection lens.

[Claim 2] 2. The projector of claim 1, wherein the first adjusting device adjusts the position of the illumination optics at the same time as the second adjusting device adjusts the position of the projection lens.

[Claim 3] 3. The projector of claim 1, wherein the illumination optics comprises a concave mirror.

[Claim 4] 4. The projector of claim 1, wherein the illumination optics comprises an aspherical lens.

[Claim 5] 5. The projector of claim 1, wherein the illumination optics comprises a concave mirror and an aspherical lens and the first adjusting device adjusts the position of both the concave mirror and the aspherical lens

while the second adjusting device simultaneously moves adjusts the position of the projection lens.

[Claim 6] 6. The projector of claim 1, further comprising a folding mirror for reflecting light beams emitted by the illumination optics and a third adjusting device for adjusting a position of the folding mirror at the same time as the first and second adjusting devices adjust the positions of the illumination optics and the projection lens.

[Claim 7] 7. A projector, comprising:
a folding mirror for reflecting light beams;
a light modulating apparatus for receiving and modulating the light beams;
a projection lens for projecting an image of the light beams received from the light modulating apparatus;
a first adjusting device for adjusting a position of the folding mirror; and
a second adjusting device for adjusting a position of the projection lens in response to the adjustment of the position of the folding mirror for creating an offset of a position of the image projected by the projection lens.

[Claim 8] 8. The projector of claim 7, wherein the first adjusting device adjusts the position of the folding mirror at the same time as the second adjusting device adjusts the position of the projection lens.

[Claim 9] 9. The projector of claim 7, further comprising illumination optics for focusing light beams reflected by the folding mirror onto the projection

lens and a third adjusting device for adjusting a position of the illumination optics at the same time as the first and second adjusting devices adjust the positions of the folding mirror and the projection lens.

[Claim 10] 10. The projector of claim 9, wherein the illumination optics comprises a concave mirror.

[Claim 11] 11. The projector of claim 9, wherein the illumination optics comprises an aspherical lens.

[Claim 12] 12. The projector of claim 9, wherein the illumination optics comprises a concave mirror and an aspherical lens and the third adjusting device adjusts the position of both the concave mirror and the aspherical lens while the second adjusting device simultaneously moves adjusts the position of the projection lens.

[Claim 13] 13. A method for adjusting an offset of an image projected by a projector;

the projector comprising:

illumination optics for providing light beams;

a folding mirror for reflecting light beams; and

a projection lens for projecting an image of the light beams;

the method comprising:

adjusting positions of the projection lens and at least one of the folding mirror and the illumination optics for creating an offset of a position of the image projected by the projection lens.

[Claim 14] 14. The method of claim 13 wherein the positions of the projection lens and the folding mirror or illumination optics are adjusted simultaneously.

[Claim 15] 15. The method of claim 13 wherein the illumination optics comprises a concave mirror and an aspherical lens and the method comprises adjusting the positions of the projection lens and at least one of the folding mirror, concave mirror, and aspherical lens for creating the offset of the position of the image projected by the projection lens.

[Claim 16] 16. The method of claim 15 wherein the positions of the projection lens, concave mirror, aspherical lens, and folding mirror are adjusted simultaneously.